

## **Portland versus Oregon**

Patrick Michaels and David Wojick

June 5, 2016

In an outrageous fit of activism the Portland School Board has banned the teaching of climate science. Of course they have not banned climate science by name, but their new order effectively bans teaching much of what we know about climate, especially the potential role of natural variability in global warming and climate change. In fact they appear to have ruled out the teaching of climate science that is specifically required by the State of Oregon. This is bad news for the students.

Here is the actual order from the School Board to the Portland Public Schools (PPS):

"PPS will abandon the use of any adopted text material that is found to express doubt about the severity of the climate crisis or its root in human activities."

What must now be taught is that there is a severe climate crisis caused by humans. The problem is that this is not what the Oregon Science Education Standards specify that students should learn. The Portland students will be tested on what the Oregon standards say, which is the basic science, not what the School Board says, so the students are in a bad spot.

Oregon has adopted the new Next Generation Science Standards, as have most states. These standards are pretty specific about climate science and it is not that there is a human induced severe crisis, far from it. The standards recognize that both natural processes and human activities can affect climate. Most importantly they draw no conclusion regarding the as yet unsolved attribution problem, which is how much of the observed global warming is natural versus human?

For example, the Next Gen Standards say the students will know how to do this:

"Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate. Clarification Statement: Examples of the causes of climate change differ by timescale, over 1-10 years: large volcanic eruption, ocean circulation; 10-100s of years: changes in human activity, ocean circulation, solar output;..."

Note that changes in ocean circulation and solar output compete with human activity as causes of climate change on the scale of 10-100s of years, and these are just examples. That all climate change is due to human activity is implicitly denied, as it should be.

These Standards do a reasonable job of expressing present day climate science, but that science is now banned in Portland. Under the School Board order the Standards themselves perhaps cannot even be shown to the students, because they clearly suggest a role for natural variability. Given that the statewide tests are based on the Standards, it is normal to show them to the students, so they can see what they are supposed to know. This is called teaching to the tests. It appears from the order that PPS might not even be able to show the student the model that they are required to know how to use, because it allows for natural variability in climate change.

Because the Next Generation Science Standards are being adopted by most states, the science textbook publishers are rewriting their books to fit them. In fact a big driver for having nationally uniform standards has been the problem of writing textbooks (and tests) when every state had different standards. These science books are now apparently banned in Portland. But the tests are not banned because Oregon mandates them.

The people who developed the new Standards understand the present state of climate science, as do the people writing the textbooks. The Portland School Board clearly does not understand the science. The question now is what the students will understand, and how they will pass the statewide tests, given that the required science cannot be taught.

Perhaps the teachers will smuggle the needed science into the classrooms. After all, the School Board order does not ban bringing in accurate scientific materials, not yet anyway; it just bans the PPS from buying them. But it is hard to teach without textbooks.

The Portland situation is climate activism at its worse and the children may well bear the brunt of this foolishness.

Patrick J. Michaels is the director of the Center for the Study of Science at the Cato Institute.